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PATENT
Attorney Docket No. A-69306-2
Attorney File No.: 463037-00324

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

TAO *et al.*

Serial No. 10/832,502

Filed: April 12, 2004

For: *Target Analyte Detection Using
Asymmetrical Self-Assembled
Monolayers*

Examiner: FREDMAN, Jeffrey N.

Art Unit: 1645

CERTIFICATE OF MAILING

I hereby certify that this correspondence, including listed enclosures, is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

Dated: October 11, 2005

Signed: *[Signature]*
Brent Yenichara

**INFORMATION DISCLOSURE STATEMENT
AND
STATEMENT OF RELATEDNESS**

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and in accordance with the provisions of 37 C.F.R. §§ 1.97 and 1.98, Applicants wish to draw the attention of the U.S. Patent and Trademark Office to the references cited on the accompanying form PTO/SB/8A. In accordance with 1287 Off. Gaz. Pat. Office 163, 10/19/2004, no copies of U.S. patents and U.S. published applications are enclosed.

Further, this application is a continuation of the following related U.S. Application – Serial No. 09/847,113, filed May 1, 2001 (now U.S. Patent No. 6,753,143), upon which the instant application relies for its priority date. Applicants wish to draw the attention of the U.S. Patent and Trademark Office to the references cited on the

accompanying substitute for form PTO-1449. Since all references cited, except for reference nos. A66 – A68, A73, A80, and A85 – A96, were previously disclosed in the above-mentioned application, in accordance with 37 C.F.R. § 1.98(d), no copies of these references are enclosed.

Further, in satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and as required by M.P.E.P. § 2001.06(b), Applicant notes that the present application is related to the following pending patent applications:

1. U.S.S.N. 08/873,978, filed June 12, 1997; U.S.S.N. 09/557,577, filed April 21, 2000;
2. U.S.S.N. 09/626,096, filed July 26, 2000;
3. U.S.S.N. 08/873,597, filed June 12, 1997;
4. U.S.S.N. 09/135,183, filed August 17, 1998;
5. U.S.S.N. 09/452,277, filed December 3, 1999; U.S.S.N. 11/208,384, filed August 19, 2005; and
6. U.S.S.N. 09/245,105, filed January 27, 1999.

Nothing herein shall constitute an admission concerning the contents of any of the cited references, nor shall the inclusion of a reference herein be considered an admission that the reference constitutes prior art against the invention claimed in the above-identified application. Submission of the present document shall not be construed as an admission that a search has been made or that better art does not exist.


As far as is known to the undersigned, this Information Disclosure Statement is being filed within three months of the filing date of a national application, within three months of the date of entry of the national state in an international application, or before

Serial No.: 10/823,502
Filed: April 12, 2004

the mailing date of a first Office Action on the merits as set forth in 37 C.F.R. § 1.97(b), and therefore no fee is required. While no further fee is believed to be due, if this belief is in error, the Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-2319 (Our File No. 463037-00324; Our Docket No.: A-69306-2).

Please direct further questions in connection with this petition to the undersigned at (415) 781-1989.

Respectfully submitted,
DORSEY & WHITNEY LLP

Dated: October 11, 2005 By: 

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San Francisco, CA 94104-1513
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Facsimile: (415) 398-3249

Timothy A. Worrall, Reg. No. 54,552 for
Robin M. Silva, Reg. No. 38,304

Attachments: Form PTO/SB/8A-B, Substitute for form PTO 1449
Return Postcard



Substitute Form 1449A/PTO
(Modified)

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known

Application Number	10/823,502
Filing Date	April 12, 2004
First Named Inventor	TAO, Chunlin
Art Unit	1645
Examiner Name	FREDMAN, Jeffrey N.
Attorney Docket Number	A-69306-2 (463037-00324)

Sheet 1 of 12

U.S. PATENT DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	4,704,193	11-03-1987	Bowers et al.	
	A2	4,707,352	11-17-1987	Stavrianopoulos	
	A3	4,707,440	11-17-1987	Stavrianopoulos	
	A4	4,711,955	12-08-1987	Ward et al.	
	A5	4,755,458	07-05-1988	Rabbani et al.	
	A6	4,787,963	11-29-1989	MacConnell	
	A7	4,840,893	06-20-1989	Hill et al.	
	A8	4,849,513	07-18-1989	Smith et al.	
	A9	4,868,103	09-19-1989	Stavrianopoulos et al.	
	A10	4,882,013	11-21-1989	Turner et al.	
	A11	4,894,325	01-16-1990	Englehardt et al.	
	A12	4,943,523	07-24-1990	Stavrianopoulos	
	A13	4,945,045	07-31-1990	Forrest et al.	
	A14	4,952,685	08-28-1990	Stavrianopoulos	
	A15	4,964,972	10-23-1990	Sagiv et al.	
	A16	4,994,373	02-19-1991	Stavrianopoulos	
	A17	5,002,885	03-26-1991	Stavrianopoulos	
	A18	5,013,831	05-07-1991	Stavrianopoulos	
	A19	5,066,372	11-19-1991	Weetall	
	A20	5,082,830	01-21-1992	Brakel et al.	
	A21	5,089,112	02-18-1992	Skotheim et al.	
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	A23	5,175,269	12-29-1992	Stavrianopoulos	
	A24	5,180,968	01-19-1993	Bruckenstein et al.	
	A25	5,241,060	08-31-1993	Englehardt et al.	
	A26	5,242,828	09-07-1993	Bergström et al.	
	A27	5,278,043	01-11-1994	Bannwarth et al.	
	A28	5,312,527	05-17-1994	Mikkelsen et al.	
	A29	5,328,824	07-12-1994	Ward et al.	
	A30	5,356,786	10-18-1994	Heller et al.	
	A31	5,391,272	02-21-1995	O'Daly et al.	
	A32	5,403,451	04-04-1995	Rivello et al.	
	A33	5,436,161	07-25-1995	Bergström et al.	
	A34	5,443,701	08-22-1995	Willner et al.	

Examiner Signature	Date Considered
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²Applicant's unique citation designation number (optional). ³ See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ⁴ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁵ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁶ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁷ Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	10/823,502
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				Art Unit	1645
(use as many sheets as necessary)				Examiner Name	FREDMAN, Jeffrey N.
Sheet	2	of	12	Attorney Docket Number	A-69306-2 (463037-00324)

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	A35	5,449,767	09-12-1995	Ward et al.	
	A36	5,472,881	12-05-1995	Beebe et al.	
	A37	5,476,928	12-19-1995	Ward et al.	
	A38	5,491,097	02-13-1996	Ribi et al.	
	A39	5,552,270	09-03-1996	Khrapko et al.	
	A40	5,565,552	10-15-1996	Magda et al.	
	A41	5,571,568	11-05-1996	Ribi et al.	
	A42	5,573,906	11-12-1996	Bannwarth et al.	
	A43	5,591,578	01-07-1997	Meade et al.	
	A44	5,595,908	01-21-1997	Fawcett et al.	
	A45	5,601,982	02-11-1997	Sargent et al.	
	A46	5,620,850	04-15-1997	Bamdad et al.	
	A47	5,622,821	04-22-1997	Selvin et al.	
	A48	5,632,957	05-27-1997	Heller et al.	
	A49	5,650,061	07-22-1997	Kuhr et al.	
	A50	5,700,667	12-23-1997	Marble et al.	
	A51	5,705,346	01-06-1998	Okamoto et al.	
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	A53	5,741,700	04-21-1998	Ershov et al.	
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	A57	5,776,872	07-07-1998	Hashimoto et al.	
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	A60	5,824,473	10-10-1998	Meade et al.	
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	A62	5,849,486	12-15-1998	Heiler et al.	
	A63	5,851,772	12-22-1998	Mirzabekov et al.	
	A64	5,952,172	09-14-1999	Meade et al.	
	A65	5,976,802	11-02-1999	Ansorge et al.	
	A66 †	6,013,170	01-11-2000	Meade	
	A67 †	6,060,256	05-09-2000	Everhart et al.	
	A68 †	6,013,459	01-11-2000	Meade	

Examiner Signature	Date Considered
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				Filing Date	April 12, 2004
				First Named Inventor	TAO, Chunlin
				Art Unit	1645
				Examiner Name	FREDMAN, Jeffrey N.
(use as many sheets as necessary)				Attorney Docket Number	A-69306-2 (463037-00324)
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	A69	6,071,699	06-06-2000	Meade et al.	
	A70	6,087,100	07-11-2000	Meade et al.	
	A71	6,090,933	07-18-2000	Kayyem et al.	
	A72	6,096,273	08-01-2000	Kayyem et al.	
	A73 †	6,096,497	08-01-2000	Bauer	
	A74	6,177,250	01-23-2001	Meade et al.	
	A75	6,180,352	01-30-2001	Meade et al.	
	A76	6,200,761 B1	03-13-2001	Meade et al.	
	A77	6,221,583 B1	04-24-2001	Kayyem et al.	
	A78	6,232,062 B1	05-15-2001	Kayyem et al.	
	A79	6,238,870 B1	05-29-2001	Meade et al.	
	A80 †	6,248,229 B1	06-19-2001	Meade	
	A81	6,258,545 B1	07-10-2001	Meade et al.	
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	A84	6,277,576 B1	08-21-2001	Meade et al.	
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	A87 †	6,528,266 B1	03-04-2003	Meade et al.	
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	A89 †	2001-0034033 A1	10-25-2001	Meade et al.	
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	A91 †	2002-0033345 A1	03-21-2002	Meade	
	A92 †	2003-0003473 A1	01-02-2003	Kayyem et al.	
	A93 †	2003-0148328 A1	08-07-2003	Kayyem et al.	
	A94 †	2003-0150723 A1	08-14-2003	Kayyem et al.	
	A95 †	2003-0170677 A1	09-11-2003	Meade et al.	
	A96 †	2004-0101890 A1	05-27-2004	Meade et al.	

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	B1	CA 2 090 904	09-01-1993	Hoffman La Roche	
	B2	EP 0 063 879 A2	11-03-1982	Yale University	
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				Art Unit	1645
				Examiner Name	FREDMAN, Jeffrey N.
Sheet	4	of	12	Attorney Docket Number	A-69306-2 (463037-00324)

FOREIGN PATENT DOCUMENTS							
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	B3	EP 0 229 943 B1	07-29-1987	Molecular Biosystems Inc.			
	B4	EP 0 234 938 A2	02-09-1987	Cranfield Institute of Technology			
	B5	EP 0 515 615 A2	09-02-1996	Boehringer Mannheim			
	B6	EP 0 599 337 A2	01-06-1994	Canon K.K.			
	B7	JP 63-238166 A	10-04-1988	Mitsubishi Corp.			
	B8	JP 6-41183 A	02-15-1994	Mitsubishi Chemical			
	B9	WO 86/05815 A1	10-09-1986	Genetic International, Inc.			
	B10	WO 90/05303 A1	05-31-1990	Pharmacia AB			
	B11	WO 90/05732 A1	05-31-1990	The Trustees of Columbia University in the City of New York			
	B12	WO 92/10757 A1	05-25-1992	Boehringer Mannheim			
	B13	WO 93/10267 A1	05-27-1993	Igen, Inc.			
	B14	WO 93/22678 A1	11-11-1993	Baylor College of Medicine			
	B15	WO 94/22889 A1	10-13-1994	Cis Bio International			
	B16	WO 95/15971 A2/A3	06-15-1995	California Institute of Technology			
	B17	WO 96/40712 A1	12-19-1996	California Institute of Technology			
	B18	WO 97/01646 A2/A3	01-16-1997	University of North Carolina			
	B19	WO 97/27329 A1	07-31-1997	University of Chicago			
	B20	WO 97/31256 A1	08-28-1997	Cornell Research Foundation			
	B21	WO 97/41425 A1	11-06-1997	Pence, Inc.			
	B22	WO 97/44651 A1	11-27-1997	Australian Membrane and Biotechnology Institute			
	B23	WO 97/46568 A1	12-11-1997	California Institute of Technology			
	B24	WO 98/04740 A1	02-05-1998	Northwestern University			
	B25	WO 98/12539 A1	03-26-1998	Meso Scale Technologies, LLC			
	B26	WO 98/20162 A2/A3	05-14-1998	Clinical Micro Sensors, Inc.			
	B27	WO 98/27229 A1	06-25-1998	University of Chicago			
	B28	WO 98/28444 A2/A3	07-02-1998	University of Chicago			
	B29	WO 98/31839 A2/A3	07-23-1998	President & Fellows of Harvard College			

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	B30	WO 98/35232 A2/A3	08-13-1998	University of North Carolina		
	B31	WO 98/51823 A1	11-19-1998	Mosaic Technologies, Inc.		
	B32	WO 98/57158 A1	12-18-1998	Clinical Micro Sensors, Inc.		
	B33	WO 98/57159 A1	12-17-1998	Clinical Micro Sensors, Inc.		
	B34	WO 99/14596 A1	03-25-1999	AB Sangtec Medical		
	B35	WO 99/29711 A1	06-17-1999	Nanogen, Inc.		
	B36	WO 99/37819 A2/A3	07-29-1999	Clinical Micro Sensors, Inc.		
	B37	WO 99/57317 A1	11-11-1999	Clinical Micro Sensors, Inc.		
	B38	WO 99/57319 A1	11-11-1999	Clinical Micro Sensors, Inc.		
	B39	WO 99/67425 A2/A3	12-29-1999	Clinical Micro Sensors, Inc.		

NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				T ⁵
	C1	Aizawa et al., "Integrated Molecular Systems for Biosensors," Sensors and Actuators B (Nos 1/3) Part 1:1-5 (March 1995).				
	C2	Albers et al., "Design of Novel Molecular Wires for Realizing Long-Distance Electron Transfer," Biochemistry and Bienergetics, 42:25-33 (1997)				
	C3	Alleman, K.S., et al., Electrochemical Rectification at a Monolayer-Modified Electrode," J. Phys. Chem., 100:17050-17058 (1996).				
	C4	Anonymous, "Biotechnology and Genetics: Genetic Screening Integrated Circuit," The Economist (February 25-March 3, 1995)				
	C5	Arkin et al., "Evidence for Photoelectron Transfer Through DNA Intercalation," J. Inorganic Biochem. Abstracts, 6 th International Conference on Bioinorganic Chemistry, 51(1) & (2):526 (1993).				
	C6	Bain et al., "Formation of Monolayers by the Coadsorption of Thiols on Gold: Variation in the Length of the Alkyl Chain," J. Am. Chem. Soc. 111:7164-7175 (1989).				
	C7	Bamdad, C. "A DNA self-assembled monolayer for the specific attachment of unmodified double - or single stranded DNA," Biophysical Journal, 75:1997-2003 (1998).				
	C8	Barisci et al., "Conducting Polymer Sensors," TRIP, 4(9):307-311 (1996).				
	C9	Baum, R. M., "Views on Biological, Long-Range Electron Transfer Stir Debate," C&EN, pp 20-23 (1993)				
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			First Named Inventor	TAO, Chunlin	
			Art Unit	1645	
			Examiner Name	FREDMAN, Jeffrey N.	
Sheet	6	of	12	Attorney Docket Number	A-69306-2 (463037-00324)

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	C12	Bidan, "Electroconducting conjugated polymers: new sensitive matrices to build up chemical or electrochemical sensors. A Review," Sensors and Actuators, B6:45-56 (1992).		
	C13	Blonder et al., "Three-dimensional Redox-Active layered Composites of Au-Au, Ag-Ag and Au-Ag Colloids," Chem. Commun. 1393-1394 (1998).		
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				Filing Date	April 12, 2004
				First Named Inventor	TAO, Chunlin
				Art Unit	1645
				Examiner Name	FREDMAN, Jeffrey N.
Sheet	11	of	12	Attorney Docket Number	A-69306-2 (463037-00324)

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	C111	Su, et al., "Interfacial Nucleic Acid Hybridization Studied by Random Primer 32P Labelling and Liquid-Phase Acoustic Network Analysis," <i>Analytical Chemistry</i> , 66(6):769-777 (1994).	
	C112	Telser, J., et al., "DNA Duplexes Covalently Labeled at Two Sites: Synthesis and Characterization by Steady-State and Time-Resolved Optical Spectroscopies," <i>J. Am. Chem. Soc.</i> , 111:7226-7232 (1989).	
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	C118	Tullius, T.D. and B.A. Dombroski, "Iron(II) EDTA Used to Measure the Helical Twist Along Any DNA Molecule," <i>Science</i> , 230:679-681 (1985).	
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	C130	Yang, et al., "Growth and Characterization of Metal(II) Alkanecbisphosphonate Multilayer Thin Films on Gold Surfaces," J. Am. Chem. Soc., 115:11855-11862 (1993).		
	C131	Yershov, G. et al., "DNA Analysis and Diagnostics on Oligonucleotide Microchips," Proc. Natl. Acad. Sci. USA, 93:4913-4918 (1996).		
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